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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/811,742	03/06/97	ZHANG	H 0756-1641

MM42/0803
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EXAMINER	
HAWRANEK, S	
ART UNIT	PAPER NUMBER
2823	24

DATE MAILED: 08/03/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/811,742

Applicant(s)
Zhang et al.

Examiner
Scott J. Hawranek

Group Art Unit
2823



☒ Responsive to communication(s) filed on May 21, 1999

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 5-12, 16, 19, and 26-48 is/are pending in the application.

Of the above, claim(s) 49-66 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 5-12, 16, 19, and 26-48 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Election/Restriction

1. Newly submitted claims 49-66 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Species I: Claims 5-12,16,19 and 26-48 a method of forming a semiconductor device wherein forming a semiconductor film on the surface of a glass substrate.

Species II: Claims 49-66 relating to a method of forming a semiconductor device wherein forming a semiconductor film on an insulated surface of the substrate.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, Species II, claims 49-66 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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3. Claims 5-12, 16, 19, 26, 27-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oka (JP '915), in view of Lie et al. (US '826) and in further view of Kuznetsov (Inst. Phys. Conf.), as of record and in further view of Kumomi (US '661).

Kumomi (US '661) teaches MILC or catalyst enhanced areas crystal growth takes place parallel to the substrate (e.g. MILC). Therefore, it is held, absent evidence to the contrary, that crystal growth of Oka would occur by this mechanism. See In re Best, 195 USPQ 428 (CCPA 1977) and In re Fitzgerald, 205 USPQ 594 (CCPA 1980).

In addition, it should be noted that the specification contains no disclosure of either the critical nature of the claimed ranges of nickel concentration or any unexpected results arising therefrom over the prior art. Where patentability is said to be based upon particular chosen dimensions or upon another variable recited in a claim, the applicant must show that the chosen ranges are critical. In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Response to Arguments

4. Applicant has overcome previous 35 U.S.C. 112 rejections.

Applicant's arguments filed 5/21/99 have been fully considered but they are not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

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combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant argues Oka does not disclose the purpose of leaving some areas amorphous. However, if applicant refers to rejection Liu is relied upon for that teaching in which some areas are left amorphous due to the nickel concentration or lack thereof and would have therefore understood the importance of the critical concentration of the catalyst (e.g. amount required to crystallize the a-si) in order to leave some areas amorphous as taught by Liu.

In addition, applicant argues that Kuznetsov does not teach the lateral crystal growth since the catalyst is introduced to the whole surface (however nowhere is this stated by Kuznetsov explicitly) and the image shown are only cross-section views. However, MILC is still an inherent aspect of Oka as described above.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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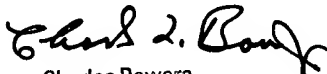
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott J. Hawranek whose telephone number is (703) 305-0070. The examiner can normally be reached on Monday thru Friday from 8:30 to 6:00 P.M. .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael M. Fahmy, can be reached on (703) 308-4918. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1778.

Scott J. Hawranek
Art Unit: 2823
June 28, 1999


Charles Bowers
Supervisory Patent Examiner
Technology Center 2300